	Application No.	Applicant(s)
Notice of Allowability	10/767,640	WATANABE ET AL.
	Examiner	Art Unit	
	Joseph Schell	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to *Amednment filed 6/6/07 and Interview on 6/13/07.*

2. ☒ The allowed claim(s) is/are *1,2,4-11,13-20 and 22-35.*

3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some*   c) ☐ None of the:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the

           International Bureau (PCT Rule 17.2(a)).

    * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.

    (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached

        1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.

    (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of

        Paper No./Mail Date _____.

    Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)

2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)

3. ☐ Information Disclosure Statements (PTO/SB/08),
    Paper No./Mail Date _____

4. ☐ Examiner's Comment Regarding Requirement for Deposit
    of Biological Material

5. ☐ Notice of Informal Patent Application

6. ☐ Interview Summary (PTO-413),
    Paper No./Mail Date _____ .

7. ☒ Examiner's Amendment/Comment

8. ☐ Examiner's Statement of Reasons for Allowance

9. ☐ Other _____.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes

and/or additions be unacceptable to applicant, an amendment may be filed as provided

by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be

submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview

with Shannen Delaney on June 13th, 2007.

The application has been amended as follows:

In Claim 1 line 3 please delete "the method" and "the steps of" so that the line only

reads "system, comprising:"

In Claim 2 line 1 please delete "the steps of" so that the line reads "The method of claim

1 further comprising:"

In Claim 2 line 2 please move the word "initialization" and add "of" so that the line reads

"completing initialization of the repaired storage appliance; and"

Please replace Claim 7 with the following:

7.   A first storage appliance for use in a storage system cluster, the first storage

appliance comprising:

a storage operating system having a cluster failover layer adapted to perform a coordinated bringup operation in association with a partner storage appliance, wherein the coordinated bringup operation comprises:

(i) asserting a first state in memory of the first storage appliance;

(ii) initializing a disk subsystem of the first storage appliance in response to detecting a release of disk reservations by the partner storage appliance;

(iii) asserting a second state in memory of the first storage appliance;

(iv) processing data access requests directed to the first storage appliance after a giveback operation performed by the partner storage appliance; and

whereby a period of time during which clients of the first storage system are without connectivity is minimized.

In Claim 8 line 3 please change "partner" to "first" so that the line reads "operations to the partner storage appliance to detect a state of the first storage appliance."

In Claim 9 line 1 please add "first" so that the line reads "The first storage appliance of claim 8 wherein the second"

In Claim 9 line 2 please add "first" so that the line reads "state comprises an indication that the first storage appliance has initialized its disk"

In Claim 10 line 1 please add "first" so that the line reads "The first storage appliance of claim 8 wherein the first"

In Claim 10 line 2 please add "first" so that the line read "state comprises an indication

that the <u>first</u> storage appliance awaits release of disk"

In Claim 11 line 3 please delete "the method" and "the steps of" so that the line reads

"system, comprising:"

In Claim 13 line 3 please change "the" to "a" so that the line reads "to <u>a</u> predetermined

memory location."

In Claim 14 line 3 please change "the" to "a" so that the line reads "of <u>a</u> predetermined

memory location."

In Claim 20 line 3 please move the word "initialization" and add "of" so that the line

reads "completing <u>initialization of</u> the repaired storage appliance; and"

Please replace Claim 24 with the following:

24.   A method for a coordinated bringup of a repaired storage appliance in a storage

appliance cluster, comprising:

        asserting a first state in memory of the repaired storage appliance, the first state

indicating that the repaired storage appliance awaits release, by a surviving storage

appliance, of disk reservations for a disk subsystem of the repaired storage appliance;

releasing the disk reservations in response to detection of the asserted first state by the surviving storage appliance;

initializing the disk subsystem of the repaired storage appliance in response to releasing the disk reservations by the surviving storage appliance;

asserting a second state in memory of the repaired storage appliance, the second state indicating that the repaired storage appliance has initialized the disk subsystem; and

performing a giveback operation by the surviving storage appliance in response to detecting the second state.

Please replace Claim 28 with the following:

28.   A first storage appliance for use in a storage system cluster, the first storage appliance comprising:

a storage operating system having a cluster failover layer adapted to perform a coordinated bringup operation in association with a partner storage appliance, wherein the coordinated bringup operation comprises:

asserting a first state in memory of the first storage appliance, the first state indicating that the first storage appliance awaits release, by a partner storage appliance, of disk reservations for a disk subsystem of the frst storage appliance;

releasing the disk reservations in response to detection of the asserted first state by the partner storage appliance;

initializing the disk subsystem of the first storage appliance in response to

releasing the disk reservations by the partner storage appliance;

asserting a second state in memory of the first storage appliance, the second

state indicating that the first storage appliance has initialized the disk subsystem; and

performing a giveback operation by the partner storage appliance in response to

detecting the second state.

In Claim 29 line 1 please add "first" so that the line reads "The first storage appliance of

claim 28, wherein the first"

In Claim 29 line 2 please change "repaired" to "first" so that the line reads "state and the

second state are stored in a state data structure in memory of the first"

In Claim 30 line 1 please add "first" and change "surviving" to "partner" so that the line

reads "The first storage appliance of claim 29 wherein the partner"

In Claim 31 line 1 please add "first" and change "surviving" to "partner" so that the line

reads "The first storage appliance of claim 29 wherein the partner"

In Claim 32 line 5 please add "in memory of the repaired storage appliance, the first

state" so that the line reads "asserting a first state in memory of the repaired storage

appliance, the first state indicating that the repaired storage appliance awaits release,"

In Claim 32 line 12 please add "in memory of the repaired storage appliance, the second state" so that the line reads "asserting a second state <u>in memory of the repaired storage appliance, the second state</u> indicating that the repaired storage appliance has initialized"

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Schell whose telephone number is (571) 272-8186. The examiner can normally be reached on Monday through Friday 9AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JS

SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER